INDEX TO VOLUME VII.

A.

American Association for the Advancement of Science, Boston meeting of, 188.

Analyzer, Harmonic, *Le Conte*, 27.

Anthony, William A., *Lecture-Notes on the Theory of Electrical Measurements*, 314.

Application of interference methods to a study of the changes produced in metals of magnetization, *Stevens*, 19.

Arc, Electrical properties of the vapors from the carbon, *Merritt and Stewart*, 129.

Arc, Photographic study of the electric, *Brown*, 210.

B.

Ballistic galvanometry with a counter-twisted torsion system, *Barus*, 10.

Barus, C., Ballistic galvanometry with a counter-twisted torsion system, 10.

Bedell, F., Ebert's *Magnetic Fields of Force*, 192.

The most efficient thickness of transformer plate, 242.

Book Reviews:

Canada's metals, *Roberts-Austen*, 64.

Elementary course in the integral calculus, *Murray*, 248.

Infinitesimal calculus, *Lamb*, 308.

Kollektivmasslehre, *Fechner*, 250.

Leçons de chimie générale, *Schützenberger*, 313.

Lecture-notes on the theory of electrical measurements, *Anthony*, 314.

Luce e Raggi Roentgen, *Murani*, 124.

Magnetic fields of force, *Ebert*, 192.

Ostwald's klassiker der exalten wissenschaften, 315.

Photographie et l'etude des nuages, *Boyer*, 313.

Practical electricity and magnetism, *Henderson*, 252.

Shop and road testing of dynamos and motors, *Parham and Shedd*, 256.

Storage battery, *Treadwell*, 312

Teoria dei raggi Roentgen, *Re*, 254.

Treatise on magnetism and electricity, *Gray*, 307.

Boston meeting of the American Association for the Advancement of Science, 188.

Boyd, James E., The resistance of the human body to direct and alternating currents, 115.

Boyer, Jacques, *La Photographie et l' etude des Nuages*, 313.

Boyle-Van't Hoft's Law, Osmotic pressure of ether solutions and its relation to, *Goodwin and Burgess*, 171.

Boynton, W. P., A quantitative study of the high frequency induction coil, 35.

Brown, N. H., A photographic study of the electric arc, 210.

Burgess, George K., The osmotic pressure of certain ether solutions and its relation to Boyle-Van't Hoff's law, 171.

C.

Cadmium cells, comparison of the electromotive force of, *Taylor*, 149.

Clark cells, comparison of the electromotive force of, *Taylor*, 149.

Cole, A. D, The measurement of short electrical waves and their transmission through water cells, 225.

Comparison of the electromotive force of the Clark and cadmium cells, *Taylor*, 149.

Condenser, Influence of a short-circuited secondary upon oscillatory discharge of, *Smith*, 231.

INDEX TO VOLUME VII.

A.

American Association for the Advancement of Science, Boston meeting of, 188.

Analyzer, Harmonic, *Le Conte*, 27.

Anthony, William A., *Lecture-Notes on the Theory of Electrical Measurements*, 314.

Application of interference methods to a study of the changes produced in metals of magnetization, *Stevens*, 19.

Arc, Electrical properties of the vapors from the carbon, *Merritt and Stewart*, 129.

Arc, Photographic study of the electric, *Brown*, 210.

B.

Ballistic galvanometry with a counter-twisted torsion system, *Barus*, 10.

Barus, C., Ballistic galvanometry with a counter-twisted torsion system, 10.

Bedell, F., Ebert's *Magnetic Fields of Force*, 192.

The most efficient thickness of transformer plate, 242.

Book Reviews:

Canada's metals, *Roberts-Austen*, 64.

Elementary course in the integral calculus, *Murray*, 248.

Infinitesimal calculus, *Lamb*, 308.

Kollektivmasslehre, *Fechner*, 250.

Leçons de chimie générale, *Schützenberger*, 313.

Lecture-notes on the theory of electrical measurements, *Anthony*, 314.

Luce e Raggi Roentgen, *Murani*, 124.

Magnetic fields of force, *Ebert*, 192.

Ostwald's klassiker der exalten wissenschaften, 315.

Photographie et l'etude des nuages, *Boyer*, 313.

Practical electricity and magnetism, *Henderson*, 252.

Shop and road testing of dynamos and motors, *Parham and Shedd*, 256.

Storage battery, *Treadwell*, 312

Teoria dei raggi Roentgen, *Re*, 254.

Treatise on magnetism and electricity, *Gray*, 307.

Boston meeting of the American Association for the Advancement of Science, 188.

Boyd, James E., The resistance of the human body to direct and alternating currents, 115.

Boyer, Jacques, *La Photographie et l' etude des Nuages*, 313.

Boyle-Van't Hoft's Law, Osmotic pressure of ether solutions and its relation to, *Goodwin and Burgess*, 171.

Boynton, W. P., A quantitative study of the high frequency induction coil, 35.

Brown, N. H., A photographic study of the electric arc, 210.

Burgess, George K., The osmotic pressure of certain ether solutions and its relation to Boyle-Van't Hoff's law, 171.

C.

Cadmium cells, comparison of the electromotive force of, *Taylor*, 149.

Clark cells, comparison of the electromotive force of, *Taylor*, 149.

Cole, A. D, The measurement of short electrical waves and their transmission through water cells, 225.

Comparison of the electromotive force of the Clark and cadmium cells, *Taylor*, 149.

Condenser, Influence of a short-circuited secondary upon oscillatory discharge of, *Smith*, 231.

Current curves, method of recording, *Switzer*, 83.
Currents, electromagnetic effect of electrolytic, *Sheldon and Downing*, 122.
Currents, Resistance of the human body to direct and alternating, *Boyd*, 115.

D.

Determination of the electrochemical equivalent of silver, *Patterson and Guthe*, 257.
Device for recording photometer settings, *Matthews*, 239.
Dielectric strength of insulating materials, *Gray*, 199.
Downing, G. M., The electromagnetic effect of electrolytic currents, 122.

E.

Ebert, H., Magnetic Fields of Force, 192.
Eddy, Henry T., The velocity of light in the magnetic field, 283.
Effect of the fibrous structure of sheet iron on the changes in length accompanying its magnetization, *Rhoads*, 65.
Electrical properties of the vapors from the carbon arc, *Merritt and Stewart*, 129.
Electrical waves, measurement of short, *Cole*, 225.
Electrochemical equivalent of silver, new determination of, *Patterson and Guthe*, 257.
Electrolytes, experiments of I. Bosi on the resistance of moving, *Hall*, 246.
Electrolytic cells, polarization and internal resistance of, *Guthe*, 193.
Electrolytic currents, electromagnetic effect of, *Sheldon and Downing*, 122.
Electromagnetic effect of electrolytic currents, *Sheldon and Downing*, 122.
Electromagnetic theory of the rotation of the plane of polarization in a magnetic field, *Eddy*, 283.
Electromotive force of the Clark and cadmium cells, comparison of, *Taylor*, 149.
Experiments on the velocity of light in a magnetic field, *Morley and Miller*, 288.

F.

Fechner, Gustav Theodor, *Kollektivmasslehre*, 250.
Ferry, Ervin S., A photometric study of the spectre of mixtures of gases at low pressures, 296.
On the relation between pressure, current, and luminosity of the spectra of pure gases in vacuum tubes, 1.
Franklin, W. S., Gray's *A Treatise on Magnetism and Electricity*, 307.

G.

Galvanometry, ballistic, with a counter-twisted torsion system, *Barus*, 10.
Gases at low pressures, photometric study of the spectra of mixtures of, *Ferry*, 296.
Goodwin, H. M., The osmotic pressure of certain ether solutions and its relation to Boyle-Van't Hoff's law, 171.
Gray, Andrew, *A Treatise on Magnetism and Electricity*, 307.
Gray, Thomas, The dielectric strength of insulating materials, 199.
Guthe, Karl E., A new determination of the electrochemical equivalent of silver, 257.
Polarization and internal resistance of electrolytic cells, 193.

H.

Hall, Edwin H., Note on the experiments of I. Bosi on the resistance of moving electrolytes, 346.
Harmonic analyzer, *Le Conte*, 27.
Henderson, John, *Practical Electricity and Magnetism*, 252.
Human body, resistance of to direct and alternating currents, *Boyd*, 115.

I.

Induction coil, quantitative study of the high-frequency, *Boynton*, 35.
Influence of a short-circuited secondary upon the oscillatory discharge of a condenser, *Smith*, 231.
Insulating materials, dielectric strength of, *Gray*, 199.

Interference methods applied to a study of the changes produced in metals by magnetization, *Stevens*, 19.

Iron, sheet, effect of fibrous structure on the changes in length accompanying its magnetization, *Rhoads*, 65.

K.

Kathode rays, magnetic deflection of reflected, *Merritt*, 217.

Klein, R. M., The most efficient thickness of transformer plate, 242.

L.

Laird, Lizzie Rebecca, On the period of a wire vibrating in a liquid, 102.

Lamb, Horace, *Infinitesimal Calculus*, 308.

Le Conte, J. N., An harmonic analyzer, 27.

Light in the magnetic field, velocity of, *Eddy, Morley and Miller.*

Light in a magnetic field, velocity of, *Morrey and Miller*, 288.

Luminosity of the spectra of pure gases in vacuum tubes, relation between pressure, current, and, *Ferry*, 1.

M.

McKissick, A. F., Parham and Shedd's *Shop and Road Testing of Dynamos and Motors*, 256.

Magnetic deflection of reflected kathode rays, *Merritt*, 217.

Magnetic field, experiments on the velocity of light in, *Morley and Miller*, 288.

Magnetic field, rotation of the plane of polarization in, *Eddy*, 283.

Magnetic field, velocity of light in, *Eddy, Morley and Miller*, 283.

Magnetization, effect of fibrous structure of sheet iron on the changes in length accompanying, *Rhoads*,65.

Magnetization, interference methods applied to a study of the changes produced in metals by, *Stevens*, 19.

Manometric flames, photography of, *Nichols and Merritt*, 93.

Matthews, Charles P., A device for recording photometer settings, 239.

Matthews, C. P., Treadwell's *The Storage Battery*, 312.

Measurement of short electrical waves and their transmission through water cells, *Cole*, 225.

Merriman, Mansfield, Fechner's *Kollektivmasslehre*, 250.

Merritt, Ernest, The electrical properties of the vapors from the carbon arc, 129.

The photography of manometric flames, 93.

The magnetic deflection of reflected kathode rays, 217.

A simple mechanical illustration of apparent potential energy which is really kinetic, 106.

Murani's *Luce e Raggi Roentgen*, 124.

Re's *La Teoria dei Raggi Roentgen*, 254.

Roberts-Austen's *Canada's Metals*, 64.

Miller, Dayton C., The velocity of light in the magnetic field, 283.

Morley, Edward W., The velocity of light in the magnetic field, 283.

Most efficient thickness of transformer plate, *Bedell, Klein and Thompson*, 242.

Murani, Oreste, *Luce e Raggi Roentgen*, 124.

Murray, D. A., *An Elementary Course in the Integral Calculus*, 248.

Lamb's *Infinitesimal Calculus*, 308.

N.

Nichols, E. L., Anthony's *Lecture-Notes on the Theory of Electrical Measurements*, 314.

Henderson's *Practical Electricity and Magnetism*, 252.

Ostwald's Klassiker der Exakten Wissenschaften, 315.

The photography of manometric flames, 93.

Schützenberger's *Leçons de Chimie Générale*, 313.

Note on the experiments of I. Bosi on the resistance of moving electrolytes, *Hall*, 246.

O.

Oscillatory discharge of a condenser, influence of a short-circuited secondary upon, *Smith*, 231.

Osmotic pressure of certain ether solutions and its relation to Boyle-Van't Hoff's Law, *Goodwin and Burgess*, 171.

P.

Parham, Eugene C., *Shop and Road Testing of Dynamos and Motors*, 256.

Patterson, Geo. W., A new determination of the electrochemical equivalent of silver, 257.

Period of a wire vibrating in a liquid, *Laird*, 102.

Photographic study of the electric arc, *Brown*, 210.

Photography of Manometric flames, *Nichols and Merritt*, 93.

Photometer settings, device for recording, *Matthews*, 239.

Photometric study of the spectra of mixtures of gases at low pressures, *Ferry*, 296.

Polarization and internal resistance of electrolytic cells, *Guthe*, 193.

Polarization in a magnetic field, electromagnetic theory of the rotation of the plane of, *Eddy*, 283.

Possible change of weight in chemical reactions, *Sanford and Ray*, 236.

Potential energy, simple mechanical illustration of apparent, *Merritt*, 106.

Q.

Quantitative study of the high-frequency induction coil, *Boynton*, 35.

R.

Ray, Lillian E., On a possible change of weight in chemical reactions, 236.

Re, Filippo, *La Teoria dei Raggi Röntgen*, 254.

Relation between pressure, current, and luminosity of the spectra of pure gases in vacuum tubes, *Ferry*, 1.

Reliable method of recording variable current curves, *Switzer*, 83.

Resistance of electrolytic cells, polarization and internal, *Guthe*, 193.

Resistance of the human body to direct and alternating currents, *Boyd*, 115.

Rhoads, Edward, The effect of the fibrous structure of sheet iron on the changes in length accompanying its magnetization, 65.

Roberts-Austen, W. C., *Canada's Metals*, 64.

Rotation of the plane of polarization in a magnetic field, electromagnetic theory of, *Eddy*, 283.

S

Sanford, Fernando, On a possible change of weight in chemical reactions, 236.

Schützenberger, P., Leçons de Chimie Générale, 313.

Shedd, John C., *Shop and Road Testing of Dynamos and Motors*, 256.

Sheldon, Samuel, The electromagnetic effect of electrolytic currents, 122.

Silver, electrochemical equivalent of, *Patterson and Guthe*, 257.

Simple mechanical illustration of apparent potential energy which is really kinetic, *Merritt*, 106.

Smith, J. H., The influence of a short-circuited secondary upon the oscillatory discharge of a condenser, 231.

Spectra of mixtures of gases at low pressures, photometric study of, *Ferry*, 296.

Spectra of pure gases in vacuum tubes, relation between pressure, current and luminosity of, *Ferry*, 1.

Stevens, J. S., An application of interference methods to a study of the changes produced in metals by magnetization, 19.

Stewart, Oscar M., The electrical properties of the vapors from the carbon arc, 129.

Switzer, J. A., A reliable method of recording variable current curves, 83.

T.

Taylor, S. N., A comparison of the electromotive force of the Clark and cadmium cells, 149.

Thompson, T. P., The most efficient thickness of transformer plate, 242.

Torsion system, ballistic galvanometry with a counter-twisted, *Barus*, 10.

Transformer plate, most efficient thickness of, *Bedell, Klein, and Thompson*, 242.

Treadwell, Augustus, *The Storage Battery*, 312.

Turner, E. T., Boyer's *La Photographie et l' étude des Nuages*, 313.

V.

Vacuum tubes, relation between pressure, current, and luminosity of the spectra of pure gases in, *Ferry*, 1.

Vapors from the carbon arc, electrical properties of, *Merritt and Stewart*, 129.

Van Vleck, Edward B., Murray's *An Elementary Course in the Integral Calculus*, 248.

Velocity of light in the magnetic field, *Eddy, Morley and Miller*, 283.

Vibration of a wire in a liquid, *Laird*, 102.

W.

Water, measurement of short electrical waves and their transmission through, *Cole*, 225.

Waves, measurement of short electrical, and their transmission through water, *Cole*, 225.

Weight, possible change of, *Sanford and Ray*, 236.